DOCUMENT RESUME

ED 240 030 SO 015 403

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TITLE Research Methods in Environmental Studies: A County Planning Application in Colorado.
PUB DATE Oct 83
NOTE 13p.; Paper presented at the National Council for Geographic Education Conference (Ocho Rios, Jamaica, October 23-28, 1983).
PUB TYPE Reports - Descriptive (141) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Advisory Committees; Experiential Learning; *Geography Instruction; Higher Education; Learning Activities; *Methods Courses; *Planning Commissions; Policy Formation; Population Education; Program Descriptions; *Regional Planning; *Research Methodology; *Rural Environment; Social Science Research
IDENTIFIERS Colorado (Park County); Environmental Problems; Environmental Quality

ABSTRACT

To obtain practical experience, a research methods class at the University of Colorado (Colorado Springs) undertook a special project to help a nearby county (Park County), assess its planning needs. The county was chosen for its characteristics as a rapidly growing rural area faced with the problems created by mounting population pressure on limited services and resources. The class activity focused on the following specific research questions, each geared to a particular town within the county: methods for easing the conflict between recreational land use and mineral rights, strategies for maintaining a particular quality of life under mounting growth pressures, and remedies for limited water and road services. In groups, the class researched these problems. Reports which included an overview of the study area, surveys of geographic, legal, and environmental factors, descriptions of study methods, and recommendations for planning were presented to the county commissioners. The project was evaluated as highly successful in developing practical field skills and experience. Several recommendations for future projects include the need for written agreements and a greater exchange of information among involved parties. (LP)

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RESEARCH METHODS IN ENVIRONMENTAL STUDIES: A COUNTY PLANNING APPLICATION IN COLORADO.

by

Eve C. Gruntfest

SO 015 403

Paper presented at the National Council for Geographic Education Conference
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UCCS
303-593-3573

Research Methods in Environmental Studies:

A County Planning Application in Colorado

Introduction

I had five goals for a research methods class:

1. to challenge the students' creativity and to interest them in selecting appropriate research strategies;
2. to assist an understaffed local planning agency with geographic problem solving;
3. to develop a field exercise for students interested in professionally pursuing planning and related fields;
4. to allow the students to pursue research in geographical areas of special interest to them--whether human or physical, and;
5. to encourage students to learn from each other and to account for the range of expertise in the class.

In May, 1981, a Pikes Peak Area Council of Governments (PPACG) planner suggested we work in Park County. Park County is basically rural and is located in the mountains north and west of Colorado Springs. She summarized the county's goal to update their master plan. Following her suggestion, I listed several potential research questions for class investigation dealing with land use, water quality and supply, and growth. We talked again right before the semester began.

Just before the semester began I met with the one person planning/building/zoning department in Park County to discuss a joint UCCS, PPACG and Park County arrangement. We agreed that a project would be undertaken and the specific topics depended upon the greatest interests of class members.

The class welcomed the opportunity to directly participate in the planning process. The agencies agreed to cover gasoline expenses which allayed student fears that extensive driving to meetings, to county

offices, or to homes for face-to-face discussions with local residents would be too costly. (Round trip from Colorado Springs to the county population centers ranged from 120 to 225 miles.) Funding also gave class members a sense that their work was considered worthwhile by Park County and the PPACG.

Park County Summary

Park County is located in north central Colorado (see Figure 1). It is one of the state's largest and fastest growing counties. Between 1970 and 1980 the population increased nearly 150% from 2185 to 5333. Most of the county's population lives in the unincorporated areas. Only two communities in the county are incorporated - Fairplay, the county seat and Alma, a mining town. Fairplay's population grew only from 419 to 421 and Alma's jumped from 73 to 132. The unincorporated area population increased from 1693 to 4780. Many of the county residents are newcomers who wish to live in a rural setting and yet be able to take advantage of urban conveniences. When the outlying settlements become more densely populated due to intensified demand for land outside the city, the areas become suburbs or bedroom communities. We worked in three groups in three distinct areas of Park County. It is helpful to examine them within a development continuum from relatively undeveloped to nearly suburban:

1. Indian Mountain Subdivision is relatively undeveloped. However, numerous lots are being bought by Denverites for second home and retirement home development. The potential problems here include conflict between the recreational land uses and the mineral rights held by others. Land buyers often do not realize they do not own their land's mineral

rights. Possibly the high quality environment that attracted the new land buyers to the area may be destroyed including air and water contamination. These growth conflicts are not unusual. People move to the area for rural character. They enjoy living in rural atmosphere, and at the same time they sometimes crave more urban conveniences.

2. Guffey. This community was considered a ghost town until the mid-1970's when three women moved there and reopened the general store. Now approximately 250 people live in the town or the surrounding countryside. Guffey is far enough from large Colorado cities to presently avoid pressures. Residents are adamant that responsible planning allow continuation of a high quality of life even if development pressure mounts. The slowly growing town is 38 miles from Canon City and 65 miles from Colorado Springs. There is uranium mining potential in a drainage area about 5 miles from the town.

3. Bailey is experiencing severe population pressures. The roads, water supply and services are being strained by newcomers. Many of the residents commute to Denver. Commuter bus service to Denver began in 1978. Metropolitan Denver's influence has stressed Bailey's environmental and transportation systems. Water and roads constraints threaten the rural community character. For example, some Bailey residents bought property to raise horses. Now they find that water restrictions limit their ranching capabilities. The town is balancing the tradeoffs of city incorporation.

Certain information was already on hand. In connection with the recognized need to update the county master plan, the PPACG prepared map overlays for the county's floodplains, federal lands, hazardous mines, topography, fire districts, areas of major subdivisions, minerals, and recreational areas.

Class Format

Class meetings were held weekly. Each group had a spokesperson and a map coordinator. I proposed weekly meetings with group spokespersons rather than with the entire class. Fortunately, the students unanimously agreed that the whole class should meet weekly. The 2-1/2 hour sessions proved invaluable. Students exchanged information based on their research progress and they took advantage of earlier courses, previous experience as coordinators, contacts made or references. Class time was well utilized and the time slot fit into the prearranged work or children's schedules.* Some of the class time was used for group meetings. There was a sense of comradery and mutual aid, rather than competition. This mission of orientation carried through the final public presentation. Although one person reported the findings for the group, other group members gladly helped with questions following the presentation.

The students interviewed county, state, and federal officials to find answers to their research questions. Learning who had the most current information was a difficult task and many phone calls, trips, and classroom discussion helped minimize frustration. For example, a student looking for water information for one of the three communities could contact the county planner, the U.S. Geological Survey, the Colorado Water Conservation Board, the Denver Water Board, the Colorado State Engineer or the Water Resources Division of the Colorado Department of Water Resources.

Prior to the final presentation to the planning commissioners, the director of PPACG came to the last class meeting. During a dress rehearsal of the presentations, he took the role of an elderly county commissioner. He challenged the students on their research methods and conclusions.

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*The University of Colorado at Colorado Springs has an unusual student population. Few of the students are between 18 and 22 years old. The average age of the undergraduates is 28.

The body of each group's report is comparably organized into five parts. Each section has an introduction, research questions, and overview of the study area (including a survey of the geography and legal limits, drainage, altitude and relief, geology and soils, wildlife, floodplains, snowdepth, hydrology, public works and services, minerals and mining and demography); study methods; analysis and findings (including what was learned and specific answers to the research questions), and questions which remain unresolved.

We had two lecture sections. During the first class session we saw slides of the local geography. We also read copies of Park County zoning and subdivision legislation. Later in the semester the leading Indian Mountain subdivision real estate developer shared his perspective on the politics and economics of development.

My role was as a facilitator. I suggested a basic research format. An extensive discussion on the structure for the final document followed. I also challenged ideas and frequently raised questions. The students found the planning bureaucracy confusing. They were impatient with unfulfilled promises and contradictions in data. I tried to reduce the frustrations when possible and often as a class we discussed possible reasons for it.

Research Questions

Originally we planned to determine the precise number of remaining buildable lots in the three areas. The county and PPACG promised to send us maps with the number of lots with existing buildings. Our task was to look closely at the subdivision boundaries and determine, based on the

recent state and county laws and regulations, the number of buildable lots. Many of the subdivisions were platted prior to passage of state legislation restricting development to environmentally sound lots. We would have taken into account water supply, slope, and local resident attitudes. The background information never materialized. Taking the three community settings into account, we developed research questions to provide direction to each group's research effort.

Three sets of research questions were asked to reflect growth management concerns in the three geographic areas. In Indian Mountain the questions focused on uranium mining water and isolation. They were:

1. What general effects will uranium mining have on the overall environment and quality of life in the area?
2. How will water quality, quantity and dependability affect the development of the areas?
3. How will the subdivision's relative physical isolation affect its development?

In the Guffey area the questions were oriented to growth and public attitudes on the community's future. They were:

1. Do the citizens of Guffey wish their population to grow at all, and at what rate?
2. Are questions concerning the impact of proposed population growth on the area's ecological and economic systems secondary to the citizen's goals?
3. How do the attitudes of Guffey residents compare and conflict with Park County's goals?

In the Bailey area the growth is occurring rapidly. The research questions aimed to assess the most serious problems and identify means to mitigate their effects. They were: 1. What are the potential areas of conflict which may be encountered as the Bailey area approaches full development of the already platted subdivisions; and 2. what are the attitudes and goals of the citizens on the limits and directions growth should take during the next 20 years?

Mastery of Research Techniques and Lessons Learned

This nontraditional course presentation exposed the students to a broad spectrum of research methods. In addition, it involved them in local government planning. The techniques each person learned include:

1. research format development,
2. group process,
3. interviewing techniques,
4. public speaking,
5. graphics,
6. geology field work, and
7. media coverage.

The students learned numerous direct and indirect lessons from the class format. One of the most important and yet most difficult lessons concerns the political reality in which planner must work. Although the students' findings were sound, the director of the PPACG correctly pointed out that unless the findings were presented in an unalienating fashion, the county planning commissioners would dismiss them. The county planning commissioners might confront the students on how limited their local experience was as compared to a commissioner with 25 years' experience. When the

students agreed to this "applied project" they didn't realize the relative importance of their message--as well as their mode of presentation. In addition, we all learned how difficult it is to coordinate group efforts into one integrated report.

The class and the agencies found the experiences valuable. We presented our findings to the County Planning Commissioners. The commissioners and residents who came to the meeting had thoughtful comments and compliments. Our report is considered to be helpful and compared to consultant's fees it was inexpensive. PPACG printed a draft and the final edition of the report. Our document will be used in planning since so little formally organized information on the county is available.

There were also many indirect benefits of this research seminar. Students obtained field skills they could not learn in the classroom. One group in the field watched a herd of elk roaming across a field in South Park. Another group on their way to a meeting saw a Great Blue Heron. The glory of the full moon over the alpine meadows the night of our final presentation would surely have been missed if we had all stayed in Colorado Springs and participated in a more traditional "final" class session. Many students travelled extensively in the county and also visited offices in the Denver area. One student filed a mining claim as a result of his new understanding of the local minerals. Another student was offered a paid internship position to complete the update of the county master plan.

Recommendations for Field Methods Classes

1. Have agreements between agencies in writing. We had to fuss to get our travel reimbursements.

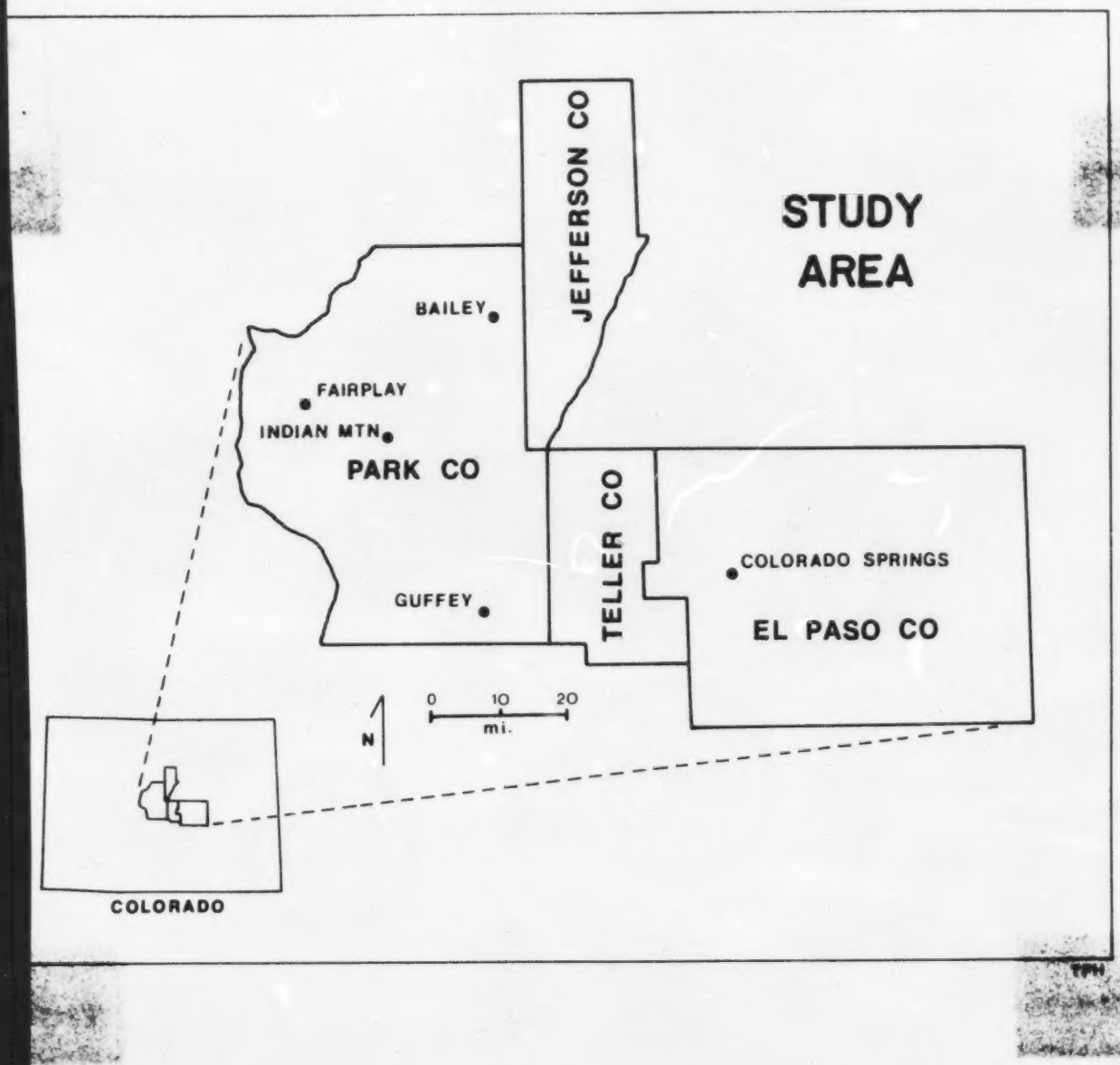
2. When decisions are being made for research strategy, assume there will not be any more base data available than you have already actually seen. We expected Park County to deliver buildout information to us. It never turned up. Our initial research strategies were based on the assumption that we would have this information. We don't know whether the figures were lost or were never prepared. To complicate issues further, our PPACG contact quit the second week of the semester. When a field course is developed communication between all the involved parties must be wide open or ambiguities and vague misunderstandings may threaten the course's success.

3. Try to schedule class meetings to coincide with meetings of concerned citizen groups, developers, town planners or others who may be able and glad to provide background information. Students need to have an accurate picture of the existing information. Also direct class-community contact will minimize misunderstanding and preconceived ideas about the class project to insure that the expected class outcome is no surprise to anyone. We were squeezed between a well meaning public official who did not fully understand (in spite of updates and progress reports) our actual plans and expectant community groups. Earlier mutual contact would have benefited all involved parties. Our main mistake was to address the report to the Park County Planning Commissioners and the "Concerned Citizens of Park County." This sounds fine. However, the concerned citizens group is actually considered radical by most of the county's residents. In our final draft we addressed the report to the "Citizen's Involvement Group." Also we learned rather late about an earlier survey which already addressed some of the issues of concern to the class.

Conclusion

The High Timber Times, a local newspaper, published our report's findings. The report was published by PPACG with an attractive cover (see Figure 2). The county planner is using our information. Each student has a copy and can claim that he or she played a significant part in a published document. We satisfied the course goals listed at class outset.

I recommend this type of field experience methods class, whenever possible. Many students never have an opportunity to make a difference in policy, to publicly speak or to travel. After the semester's experience, the class agreed the development of these professional skills will help them in selecting a career direction and in obtaining a job.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